AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) The method as claimed in claim ~~2~~ 13, wherein the transfer function is formed by FIR (Finite Impulse Response) filters, whose filter coefficients are derived from the inverse frequency curve.

4. (Cancelled)

5. (Cancelled)

6. (Currently Amended) The flat surface loudspeaker as claimed in claim ~~5~~ 22, wherein the filter device is formed by FIR (Finite Impulse Response) filters.

7. (Currently Amended) The flat surface loudspeaker as claimed in claim ~~5~~ 22, wherein the filter device includes a sample and hold element as the input element, connected via an analogue-to-digital converter to the digital filter, whose output is connected to a digital-to-analogue converter.

8. – 12. (Cancelled)

13. (New) A method for designing an individual flat surface loudspeaker optimized for a respective application including at least one oscillating coil and a surface, comprising:

mounting the at least one oscillating coil on a surface in the form of a plate;

stimulating the at least one oscillating coil to oscillate electrically from a sound source;

emitting sound by the surface stimulated to oscillate mechanically by the at least one oscillating coil;

measuring an acoustic frequency response of the flat surface loudspeaker;

determining a frequency curve based on the measured acoustic frequency response;

determining an inverse frequency curve to the frequency curve;

providing the inverse frequency curve in a filter device as a transfer function of the filter device.

14. (New) The method as claimed in claim 13, wherein the frequency response is measured individually, at least for each object type.

15. (New) The method as claimed in claim 14, wherein the electroacoustic transfer function is defined for each arrangement of the flat surface loudspeaker.

16. (New) The method as claimed in claim 13, wherein the transfer function of the filter device is stored in a data memory of a free programmable digital signal processor.

17. (New) The method as claimed in claim 16, wherein a specific transfer function relating to the respective application is stored in the data memory.

18. (New) The method as claimed in claim 13, further comprising:

selecting a material for the surface plate with respect to the application.

19. (New) The method as claimed in claim 18, wherein a wooden material, glass, plastic or polyurethane is selected as a material for the surface plate.

20. (New) The method as claimed in claim 18, further comprising:

selecting a shape for the surface plate with respect to the application.

21. (New) The method as claimed in claim 18, wherein the oscillating coil is mounted on a position, which is independent from the shape of the surface plate.

22. (New) A flat surface loudspeaker device comprising:

a flat surface loudspeaker, the flat surface loudspeaker including at least one oscillating coil, mounted on a surface in the form of a plate having predetermined material characteristics which, when stimulated by electrical sound signals, causes the surface to oscillate in order to emit sound; and

a filter device for the sound signals, connected upstream of the at least one oscillating coil, wherein

a transfer function of the filter device is the inverse of a frequency response of the flat surface loudspeaker, and

the filter device is in the form of a digital filter equipped with a freely programmable digital signal processor, including a data memory storing a

program for simulating the transfer function and for a respective application for which the flat surface loudspeaker is optimized.